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YARON MAYER 21 AHAD HAAM ST. JERUSALEM, 92151 ISRAEL		EXAMINER CULLER, JILL E		
		ART UNIT PAPER NUMBER		
		2854		

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/615,981	MAYER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jill E. Culler	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 2-6, 8-11, 13-16, 19-22, 25, 27, 29-35 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 12, 17, 18, 23, 24, 26, 28, 36, 37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 7, 17-18, 23-24, 26, 28, 36-37 and 39-41, in the reply filed on March 28, 2005 is acknowledged. The traversal is on the ground(s) that the groups are not separately usable as they have not been filed as independent claims. This is not found persuasive because the combination of each invention with the generic, independent claim is separately usable, as indicated in the restriction requirement, and therefore unless the generic claim is found to be patentable, the inventions may be patentably distinct from each other and should be examined accordingly.

The examiner appreciates applicant's evaluation of the claims according to subject matter and correction of the actual claims to be examined. It is noted that although claim 42 was cited, no claim having this number has been submitted and therefore not included.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

2. Claims 1, 7, 12, 17-18, 23-24, 26, 28, 36-37 and 39-41 are objected to because of the following informalities:

In claim 1, on line 12, and claim 12, on line 13, the phrase "only in at least one of" is contradictory. The recitation of "at least one of" implies that one or more of the alternatives can be true up to and including all of them being true at the same time.

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“Only” implies that they are not all true. Both of these things cannot be the case. For the sake of furthering prosecution, it has been assumed that applicant intended to claim “only one of” these structures and the claims have been examined accordingly, but the contradictory claim language must be addressed.

Similarly in claims 7, 17, 18, 23, 24, 26, 28, 36, 39, 40 and 41, the phrase “at least one of” appears to contradict the content of some of the claims. Because the alternative cases of the claims are not generally disclosed as being usable together, it appears that applicant intends to claim them in the alternative, in which case the phrase “one of” or “only one of” would be appropriate. For the sake of furthering prosecution, this has been assumed to be the case and the claims have been examined accordingly, but the claim language must be reconsidered. If applicant intends to claim the multiple alternatives where any combination of the claim elements in each list can be used together, the claims will be reevaluated, and there will likely be rejections under 35 U.S.C. 112 for lack of enablement of the invention as disclosed in the specification.

In claim 1, on lines 1-2, there is no antecedent basis for the recitation of “the page”. On lines 3 and 4, there is no antecedent basis for the recitation of “the paper”. These elements should be positively claimed as it appears that applicant intends to consider these limitations as part of the invention. On line 10, the phrase “printed-on on” is redundant. It appears that one of the instances of the word “on” should be removed.

In claim 7, there is no antecedent basis for the recitation of “the paper”, “the toner powder”, “the powders”, “the element that fixes the toner” or “the drums”. These

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elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 12, there is no antecedent basis for the recitation of “the page” or “the paper”. These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention. On line 11, the phrase “printed-on on” is redundant. It appears that one of the instances of the word “on” should be removed.

In claim 17, there is no antecedent basis for “the drums” or “the paper”. These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention. On line 2, it appears that the word “he” should be “the” instead.

In claim 18, there is no antecedent basis for “the paper”, “the toner powder”, “the powders”, “the element that fixes the toner” or “the drums. These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 23, there is no antecedent basis for “the laser beams” or “the paper”. These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 24, there is no antecedent basis for “the laser beams” or “the paper”. These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 26, there is no antecedent basis for "the drums", "the paper" or "the powder". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 28, there is no antecedent basis for "the cartridges", "the drums" or "the paper". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 36, there is no antecedent basis for "the drums". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 39, there is no antecedent basis for "the toners" or "the paper". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention. Also, on line 2, it appears that the phrase "at least on of" should be "at least one of".

In claim 40, there is no antecedent basis for "the fixing elements", "the toner", "the paper". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

In claim 41, there is no antecedent basis for "the fixing elements", "the toner", "the paper". These elements should be positively claimed as it appears applicant intends to consider these limitations as part of the invention.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,447,113 to Silverbrook et al.

With respect to claims 1 and 12, Silverbrook et al. teaches a system and method for printing on both sides of a page in a printer during the same printing pass by using at least one printing element, 142, on each side of the paper and stabilizing even non-continuous papers, without the need for conveyor belts, without the need for stretching the paper between two sets of rollers and printing between said two sets, and without the paper having to make a u-turn around the second printing element, and wherein the printing elements are part of at least one of: a printer, a fax machine, a photocopier, and any machine that uses printing elements, comprising: a) means, 68, for pulling pages which are being printed on by both sides while preventing smearing on both sides of the page, by using stabilizers in one of: the right and left edges of the paper, the printing position, and upstream of the printing position; and b) at least one printing element, 142, on each side of the paper capable of printing while printing is also going on at the other



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side of the paper, wherein the printing heads are arranged so that they don't disturb each other and the inks on the two sides of the paper don't interact with each other. See column 8, line 43 - column 10, line 30 and Figures 9 and 13 in particular.

5. Claim 41 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,570,451 to Sakaizawa et al.

Sakaizawa et al. teaches a laser printer, 7, wherein after the fixing elements, 5a-5c, that set the toner, paper, P1, moves through a position of another type of printing element, 16, that can add color where needed and said color printing elements can print on at least one side of the paper. See column 5, line 55 - column 7, line 65 and Figure 6 in particular. It should be noted that by claiming these elements in the alternative, only one of the alternatives must be true for the claim to be rejected.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 18, 23-24, 26 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of U.S. Patent No. 6,032,015 to Umeda et al.



With respect to claims 7 and 18, Silverbrook et al. teaches all that is claimed, as in the above rejection of claims 1 and 12 except that the printer is a laser printer and the paper is given a stronger electric charge and the toner powder on both sides of the paper is given a weaker electric charge in order to avoid rejection between the powders from both sides of the paper.

Umeda et al. teaches a laser printer wherein the paper is given a stronger electric charge and the toner powder on both sides of the paper is given a weaker electric charge in order to avoid rejection between the powders from both sides of the paper. See column 6, line 43 - column 7, line 38.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system of Silverbrook et al. to have the laser printing elements, toner and paper charges of Umeda et al. in order to print more precise images and to minimize smearing of the images.

With respect to claims 23-24, Silverbrook et al. does not teach that the printer is a laser printer and one of the following configurations is used for supplying the laser beams to both sides of the paper: a) at least two laser sources are used, one for each side of the paper, b) at least two LED arrays are used, one for each side of the paper; c) at least one laser source is optically split into at least two beams which are then separately modulated on/off and rotated by their own optical reflector. d) at least one laser source is conducted part of the time by optical means to transfer the light to the other side of the paper so that part of the rotation of the optical deflector runs the laser light over the appropriate pixel line on the drum on one side of the paper; and another

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set of angles of rotation runs the light into the optical relay system which correspondingly diverts the laser light to the appropriate position in the pixel-line on the drum on the side of the paper.

Umeda et al. teaches a laser printer wherein at least two laser sources, 105a, 105b, are used, one for each side of the paper. See column 6, lines 53-58 and Figure 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system of Silverbrook et al. to have the laser printing elements on either side of the paper, as taught by Umeda et al., in order to print more precise images.

With respect to claim 26, Silverbrook et al. does not teach that the printer is a laser printer and there is a shift in the position of the two drums so that the paper does not touch

Umeda et al. teaches a laser printer wherein the drums are movable. See column 13, lines 55-67.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system of Silverbrook et al. to have the movable rolls of Umeda et al., in order to prevent smudging of the paper if the elements are not in use.

8. Claims 17, 28, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of U.S. Patent No. 5,552,857 to Ishikawa

Silverbrook et al. teaches all that is claimed, as in the above rejection of claims 1 and 12, except that the printer is a laser printer and at least one of the following

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configurations exists: at least two cartridges are used next to each other so that the drums are closely facing each other and the paper can pass between at least two drums at the same time, and at least one cartridge is used to deal with both sides of the paper, so that the paper passes between at least one pair of drums that are connected to the same cartridge, wherein a number of double-drum toner cartridges are used for color printing.

Ishikawa teaches a laser printer having a toner cartridge having a plurality of drums. See column 4, lines 4-20 and Figure 1 in particular.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Silverbrook et al. to have the laser printing cartridges of Ishikawa on either side of the paper, such that the cartridge drums are facing each other and the paper is passing between at least two drums at the same time in order to be able to print more complex images on both sides of the paper.

9. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. in view of Sakaizawa et al.

Silverbrook et al. teaches all that is claimed, as in the above rejection of claims 1 and 12, except that the printer is a laser printer wherein after the fixing elements that set the toner, the paper moves through a position of another type of printing element that can add color where needed and said color printing elements can print on at least one side of the paper.

Sakaizawa et al. teaches a laser printer, 7, wherein after the fixing elements, 5a-5c, that set the toner, paper, P1, moves through a position of another type of printing element, 16, that can add color where needed and said color printing elements can print on at least one side of the paper. See column 5, line 55 - column 7, line 65 and Figure 6 in particular.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Silverbrook et al. to use the laser printer and secondary printer of Sakaizawa et al. in order to be able to produce more complex images.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,958,187 to Tsuchiya et al. teaches a printer having apparent similarities to the claimed subject matter.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Andrew H. Hirshfeld", is positioned above the printed name.

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